PHILOSOPHICAL TRANSACTIONS.

September 20. 1669.

The Contents.

The Proceſs uſed in France *of making* Sea-ſalt *by the Sun. An Anſwer to ſome Inquiries about the late Eruption of* Mount Ætna. *An Account of two Books:* I. *DISCOURS de M. STENON ſur L' ANATOMIE du CERVEAU.* II. *The former Accompt of Dr Witties ANSWER to HYDROLOGIA CHYMICA enlarged: Where the ſanative vertue of the* Scarborough Spaw *is aſſerted from long experience; and on that occaſion the Healing performances of many other Waters, both in England and elſewhere, diſcourſed of; together with their particular Cures, Ingredients, Mixtures, and the Wayes of Analyſing them; as alſo the Neceſſity of uſing them or moſt of them at the Spring-head, &c.*

An Extract of a Letter

Containing the whole Proceſs, uſed in France *for making* Sea-Salt *by the Sun; communicated to the Publiſher in French, by an Ingenious Dr of Phyſick of that Nation, reſiding near the chief place, where 'tis practiſed; and Engliſhed as follows:*

Sir,

I Can at preſent acquit myſelf but of one of the Commiſſions, you gave me when I took my leave of you, referring the other to more leiſure. And I herewith ſend you the Plan * of our Salt-making Mariſhes, together

* *See the Figure.*

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together with the *Way* of making our Salt. If there be any thing, I have forgot, or related obſcurely, give yourſelf only the trouble of advertizing me of it, and in my next I will add or cleer it.

AAA. is the Sea.

II. the Entry, by which the Sea-water paſſes into BB.

BB. the firſt Receptacle; in which the Water is kept 20. inches deep.

CCC. the ſecond Receptacle, where the Water maketh three turnings, as you ſee, and is 10. inches deep.

22. the Opening, by which the firſt and ſecond Receptacle have communication one with another.

EEF. the third Receptacle, which is properly called the Mariſh.

dddddd, is a Channel very narrow, through which the Water muſt paſſe before it enters out of the ſecond Receptacle into the third.

33. is the Opening, by which the Water runs out of the ſecond into the third Receptacle.

The pricks, you ſee in the Water throughout the whole *S*cheme, doe mark the courſe and turnings, which the Water is forced to make before it comes to *hhhhh*, which are the places where the *S*alt is made.

hhhhh. are the Beds of the Mariſh, where the *S*alt is made; and in them the Water muſt not be above an inch and an half deep. Each of theſe Beds is 15 foot long and 14 foot large.

99999. are the little Channels between the Beds.

88888. are the Apertures, by which the Beds receive the *S*ea-water after many windings and turnings.

When it raines, the openings 22, 33. are ſtopp'd, to hinder the Water from running into the Mariſh mark't EEF. Unleſs it rain much, the rain-water doth little hurt to the Mariſh; and although it rain a day or a night, we doe not let the water which is in the Mariſh run out, the heat of the *S*un ſufficiently exhaling ſuch Rain-water, if, for example it be not above an inch high. Only, if it have rain'd very plentifully that day, no *S*alt is drawn for the 3. or 4. next-following days. But

if

if it rain 5. or 6. days, the people are then neceſſitated to empty all the Water of the Beds by a peculiar Channel, conveighing it into the Sea; which Channel cannot be opened, but when 'tis Low water. But 'tis very ſeldome, that it rains ſo long as to conſtraine men to empty thoſe Beds.

'Tis obvious, that the hotteſt years make the moſt Salt; where yet it is to be noted, that beſides the heat of the Sun, the Winds contribute much to it, in regard that leſs Salt is made in Calme, than in Windy weather. The Weſt-and North-weſt Winds are the beſt for this purpoſe.

Our Country-people draw the Salt every other day, and they draw out of thoſe Beds, mark't *h h h*, every time more than an hundred pound weight of Salt.

In the hotteſt part of the Summer there is Salt made even during Night.

The Inſtruments uſed to draw the Salt, have many ſmall holes, to let the Water paſs, and to retain nothing but the Salt.

According to the *Quality* of the Earth or Ground of the Mariſh, the Salt is made more or leſs White. The Reddiſh earth maketh the *S*alt more Gray; the Blewiſh, more White: Beſides, if you let run in a little more water than you ought, the *S*alt becoms thence more White; but then it yields not ſo much. Generally all the Mariſhes require a fat Earth, neither *S*pungy nor *S*andy.

And as to the Whiteneſs of *S*alt in particular, there are 3. things to be conſidered: *Firſt*, that the Earth of the Mariſh be proper. *Secondly*, that the *S*alt be made with good ſtore of water. *Thirdly*, That the *S*alt-man, who draws it, be dexterous. In this Iſle of *Rhe* there are, that draw very dark *S*alt, and others, that draw it as white as *S*now; and ſo it is in *Xaintonge*. Chiefly care is to be taken, that the Earth at the bottome of the Beds mingle not with the *S*alt. The *S*alt, we uſe at our Tables, is perfectly white; which is thence, that 4. or 5. hours before the *S*alt is to be drawn, we draw the Creme, or that *S*alt which is form'd on the top of the water. The grains of it are ſmaller, than of the other. Generally the *S*alt of *Xaintonge* is ſomewhat whiter, than ours. I do not well know the bigneſs of the *S*ea-*S*alt made by Fire; but ours is of the ſize of a Pepper-grain, and of a Cubical ſhape.

The Mariſhes are preſerv'd from one year to another by overflowing them, ſo that the water be near a foot high above the Mariſhes.

There are Mariſhes, that are not ſeparated from the *S*ea but by a ditch of 20. or 30. foot large: others are further diſtant, receiving the Water by Channels, that are made according to the *S*cituation of the Mariſhes. To preſerve this Ditch, it is ſtrengthened with ſtones from the foot to the top, as we uſe to pave ſtreets.

The Timber of the Mariſhes, if it be of good Oak, keeps near thirty years; but there is uſed but little Wood, all the Ditches and Apertures being done with ſtones.

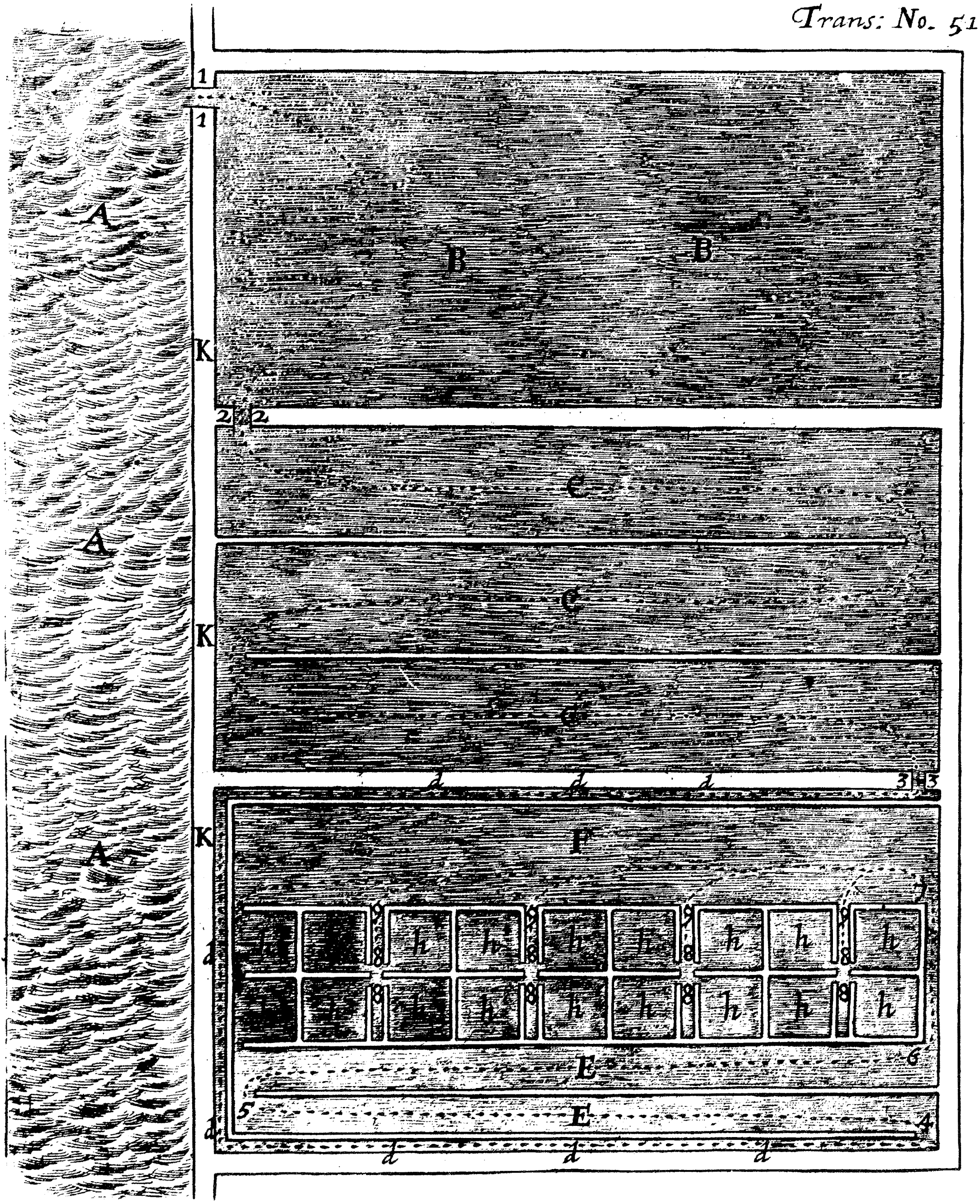
An Anſwer

To ſome Inquiries concerning the Eruptions of Mount Ætna, *An.* 1669. *Communicated by ſome Inquiſitive Engliſh Merchants, now reſiding in* Sicily.

Touching the Forerunners of this Fire, there was, for the ſpace of 18. days, before it broke out, a very thick dark sky in thoſe parts, with Thunder and lightning and frequent Concuſſions of the Earth, which the people make terrible reports of, though I never ſaw nor heard of any Buildings caſt down thereby, ſave a ſmal town or village, call'd *Nicoloſi*; about halfe a mile diſtant from the New Mouth, and ſome ſuch other ſlight Buildings among thoſe Towns, that were after over-run by the Fire. Beſides, it was obſerv'd that the Old top or Mouth of *Ætna* did, for 2. or 3. months before, rage more than uſual; the like of which did *Volcan* and *Strombilo*, two Burning Iſlands to the Weſt-ward. And the top of *Ætna* muſt about the ſame time have ſunk down into its old *Vorago* or hole, in that 'tis agreed by all, that had ſeen this mountain before, that it was very much lower'd. Other Forerunners of this Fire I have not heard nor met with.

It firſt broke out on the Eleventh of *March* 669, about two hours before night, and that on the *South-Eaſt-ſide* or skirt of

the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